

IN THE CLAIMS:

Please amend claims 1-20, 22-31, 33-53, and 55-61 as indicated below.

1. (Currently amended) A device, comprising:

a processor;

a network interface configured to couple the device to a network; and

a memory comprising program instructions, wherein the program instructions are executable within the device to:

obtain ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources from one or more peer nodes on the network, wherein the one or more peer nodes participate in a peer-to-peer environment on the network to discover each other, communicate with each other, and cooperate with each other to form peer groups and share content, and wherein the ~~one~~ two or more mechanisms for accessing the set of peer-to-peer platform resources ~~includes~~ include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes; and

access the set of peer-to-peer platform resources using the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.

2. (Currently amended) The device as recited in claim 1, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

3. (Currently amended) The device as recited in claim 1, wherein the ~~one~~ two or more mechanisms include one or more ~~code~~ core mechanisms for accessing the set of resources.

4. (Currently amended) The device as recited in claim 1, wherein the ~~one~~ two or more mechanisms include a mechanism for accessing a peer resolver service for sending search queries to other peer nodes in the peer-to-peer environment in accordance with a peer resolver protocol.

5. (Currently amended) The device as recited in claim 1, wherein the ~~one~~ two or more mechanisms include a mechanism for accessing a peer information service for obtaining information about peer nodes' capabilities and status in accordance with a peer information protocol.

6. (Currently amended) The device as recited in claim 1, wherein the ~~one~~ two or more mechanisms include a mechanism for accessing a pipe binding service for finding a physical location of a pipe endpoint and binding the pipe endpoint to a peer node in accordance with a pipe binding protocol, wherein a pipe endpoint corresponds to a network interface of a peer node.

7. (Currently amended) The device as recited in claim 1, wherein the ~~one~~ two or more mechanisms include a mechanism for accessing an endpoint routing service for obtaining network route information to peer nodes in accordance with an endpoint routing protocol.

8. (Currently amended) The device as recited in claim 1, wherein the program instructions are further operable to:

terminate participation of the device in the peer-to-peer environment;

maintain the ~~one~~ two or more mechanisms in memory of the device; and

access the ~~one~~ two or more maintained mechanisms to again participate in the peer-to-peer environment.

9. (Currently amended) The device as recited in claim 1, wherein the program instructions are further operable to:

terminate participation of the device in the peer-to-peer environment;

obtain one or more updated mechanisms for accessing the set of peer-to-peer platform resources from the one or more peer nodes; and

access the set of peer-to-peer platform resources using the one or more updated mechanisms to again participate in the peer-to-peer ~~environment;~~ environment.

10. (Currently amended) The device as recited in claim 1, wherein to obtain the ~~one~~ two or more mechanisms, the program instructions are further executable to locate one or more peer nodes on the peer-to-peer network.

11. (Currently amended) The device as recited in claim 1, wherein, to obtain the ~~one~~ two or more mechanisms, the program instructions are further executable to:

send a message to a particular peer node of the one or more peer nodes requesting the ~~one~~ two or more mechanisms; and

receive the ~~one~~ two or more mechanisms from the peer node in response to the request.

12. (Currently amended) The device as recited in claim 1, wherein the device is configured to execute the program instructions to:

obtain the ~~one~~ two or more mechanisms during an initialization process of the device; and

access the set of resources using the ~~one~~ two or more mechanisms during the initialization process of the device.

13. (Currently amended) A peer node, comprising:

a processor;

a network interface configured to couple the peer node to a network;

a memory operable to store program instructions, wherein the program instructions are executable by the processor to:

receive a request from a device on the network, wherein the request specifies one or more mechanisms for accessing a set of peer-to-peer platform resources for use by the device in participating in a peer-to-peer environment;[[.]]

provide ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources to the device on the network in response to the request; and

wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes.

14. (Currently amended) The peer node as recited in claim 13, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

15. (Currently amended) The peer node as recited in claim 13, wherein the ~~one~~ two or more mechanisms include one or more ~~edge~~ core mechanisms for accessing the set of resources.

16. (Currently amended) The peer node as recited in claim 13, wherein the ~~one~~ two or more mechanisms include one or more of a mechanism for accessing a peer resolver service for sending search queries to other peer nodes in the peer-to-peer environment in accordance with a peer resolver protocol, a mechanism for accessing a peer information service for obtaining information about peer nodes' capabilities and status in accordance with a peer information protocol, a mechanism for accessing a pipe binding service for finding a physical location of a pipe endpoint and binding the pipe endpoint to a peer node in accordance with a pipe binding protocol, wherein a pipe endpoint corresponds to a network interface of a peer node, and a mechanism for

accessing an endpoint routing service for obtaining network route information to peer nodes in accordance with an endpoint routing protocol.

17. (Currently amended) The peer node as recited in claim 13, wherein the program instructions are further executable to:

maintain version information for each of the ~~one~~ two or more mechanisms; and

if a particular mechanism of the ~~one~~ two or more mechanisms is updated to a new version, provide the new version of the mechanism to the device.

18. (Currently amended) A peer computing system, comprising:

a plurality of peer nodes operable to couple to a network, wherein the plurality of peer nodes are configured to implement a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment;

one of the plurality of peer nodes operable to maintain ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources on the network, wherein the ~~one~~ two or more mechanisms are obtainable by devices on the network to enable the devices to participate in the peer-to-peer environment, wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes on the network; and

a device operable to:

couple to the network;

obtain the ~~one~~ two or more mechanisms from the peer node on the network; and

access the set of resources using the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.

19. (Currently amended) The peer computing system as recited in claim 18, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

20. (Currently amended) The peer computing system as recited in claim 18, wherein the ~~one~~ two or more mechanisms include one or more ~~edge~~ core mechanisms for accessing the set of resources.

21. (Original) The peer computing system as recited in claim 18, wherein the plurality of peer nodes are members peers in a peer group that provides a common set of services to member peers of the peer group.

22. (Currently amended) The peer computing system as recited in claim 18, wherein the ~~one~~ two or more mechanisms include one or more of a mechanism for accessing a peer resolver service for sending search queries to other peer nodes in the peer-to-peer environment in accordance with a peer resolver protocol, a mechanism for

accessing a peer information service for obtaining information about peer nodes' capabilities and status in accordance with a peer information protocol, a mechanism for accessing a pipe binding service for finding a physical location of a pipe endpoint and binding the pipe endpoint to a peer node in accordance with a pipe binding protocol, wherein a pipe endpoint corresponds to a network interface of a peer node, and a mechanism for accessing an endpoint routing service for obtaining network route information to peer nodes in accordance with an endpoint routing protocol.

23. (Currently amended) The peer computing system as recited in claim 18, wherein the one of the plurality of peer nodes is further operable to:

maintain version information for each of the ~~one~~ two or more mechanisms; and

if a particular mechanism of the ~~one~~ two or more mechanisms is updated to a new version, provide the new version of the mechanism to the device.

24. (Currently amended) The peer computing system as recited in claim 18, wherein the device is operable to:

terminate participation of the device in the peer-to-peer environment;

maintain the ~~one~~ two or more mechanisms in memory of the device; and

access the ~~one~~ two or more maintained mechanisms to again participate in the peer-to-peer environment.

25. (Currently amended) The peer computing system as recited in claim 18, wherein the device is operable to:

terminate participation of the device in the peer-to-peer environment;

obtain one or more updated mechanisms for accessing the set of peer-to-peer platform resources from the one of the plurality of peer nodes; and

access the set of peer-to-peer platform resources using the one or more updated mechanisms to again participate in the peer-to-peer environment. [[;]]

26. (Currently amended) The peer computing system as recited in claim 18, wherein to obtain the ~~one~~ two or more mechanisms, the device is operable to locate the one of the plurality of peer nodes.

27. (Currently amended) The peer computing system as recited in claim 18, wherein, to obtain the ~~one~~ two or more mechanisms, the device is operable to:

send a message to the one of the plurality of peer nodes requesting the ~~one~~ two or more mechanisms; and

receive the ~~one~~ two or more mechanisms from the one of the plurality of peer nodes in response to the request.

28. (Currently amended) The peer computing system as recited in claim 18, wherein the device is operable to:

obtain the ~~one~~ two or more mechanisms during an initialization process of the device; and

access the set of resources using the ~~one~~ two or more mechanisms during the initialization process of the device.

29. (Currently amended) A peer computing system, comprising:

means for a plurality of peer nodes on a network to implement a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discovery each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment;

means for maintaining ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources on the network, wherein the ~~one~~ two or more mechanisms are obtainable by devices on the network to enable the devices to participate in the peer-to-peer environment, wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes on the network; and

means for obtaining the ~~one~~ two or more mechanisms on the network; and

means for accessing the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.

30. (Currently amended) The peer computing system as recited in claim 29, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

31. (Currently amended) The peer computing system as recited in claim 29, wherein the ~~one~~ two or more mechanisms include one or more ~~edge~~ core mechanisms for accessing the set of resources.

32. (Original) The peer computing system as recited in claim 29, wherein the plurality of peer nodes are members peers in a peer group that provides a common set of services to member peers of the peer group.

33. (Currently amended) The peer computing system as recited in claim 29, further comprising:

means for maintaining version information for each of the ~~one~~ two or more mechanisms; and

if a particular mechanism is updated to a new version of the mechanism, means for providing the new version of the mechanism to the device.

34. (Currently amended) The peer computing system as recited in claim 29, further comprising:

means for terminating participation of a device in the peer-to-peer environment;

means for maintaining the ~~one~~ two or more mechanisms in memory of the device;
and

means for accessing the ~~one~~ two or more maintained mechanisms to allow the device to again participate in the peer-to-peer environment.

35. (Currently amended) The peer computing system as recited in claim 29, further comprising:

means for terminating participation of a device in the peer-to-peer environment;

means for obtaining one or more updated mechanisms for allowing the device to access the set of peer-to-peer platform resources; and

means for accessing the set of peer-to-peer platform resources using the one or more updated mechanisms to allow the device to again participate in the peer-to-peer environment.]]

36. (Currently amended) The peer computing system as recited in claim 29, wherein the means for obtaining the ~~one~~ two or more mechanisms comprise means for locating a peer node on the network providing the ~~one~~ two or more mechanisms.

37. (Currently amended) The peer computing system as recited in claim 29, wherein means for obtaining ~~one~~ two or more mechanisms comprises:

means for sending a message to one of the plurality of peer nodes requesting the ~~one~~ two or more mechanisms; and

means for receiving the ~~one~~ two or more mechanisms from the one of the plurality of peer nodes in response to the request.

38. (Currently amended) The peer computing system as recited in claim 29, further comprising:

means for obtaining the ~~one~~ two or more mechanisms during an initialization process of a device; and

means for accessing the set of resources using the ~~one~~ two or more mechanisms during the initialization process of the device.

39. (Currently amended) A method comprising:

a device obtaining ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources from one or more peer nodes on the network, wherein the one or more peer nodes participate in a peer-to-peer environment on the network to discover each other, communicate with each other, and cooperate with each other to form peer groups and share content, and wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes; and

the device accessing the set of peer-to-peer platform resources using the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.

40. (Currently amended) The method as recited in claim 39, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

41. (Currently amended) The method as recited in claim 39, wherein the ~~one~~ two or more mechanisms include one or more ~~edge~~ core mechanisms for accessing the set of resources.

42. (Currently amended) The method as recited in claim 39, further comprising:

the device terminating participation of the device in the peer-to-peer environment;

the device maintaining the ~~one~~ two or more mechanisms in memory of the device;
and

the device accessing the ~~one~~ two or more mechanisms to again participate in the peer-to-peer environment.

43. (Currently amended) The method as recited in claim 39, further comprising:

the device terminating participation of the device in the peer-to-peer environment;

the device obtaining one or more updated mechanisms for accessing the set of peer-to-peer platform resources from the one or more peer nodes; and

the device accessing the set of peer-to-peer platform resources using the one or more updated mechanisms to participate in the peer-to-peer environment.[:,;]

44. (Currently amended) The method as recited in claim 39, wherein obtaining the ~~one~~ two or more mechanisms comprises the device locating one or more peer nodes on the peer-to-peer network.

45. (Currently amended) The method as recited in claim 39, wherein obtaining the ~~one~~ two or more mechanisms comprises:

the device sending a message to a particular peer node of the one or more peer nodes requesting the ~~one~~ two or more mechanisms; and

the device receiving the ~~one~~ two or more mechanisms from the peer node in response to the request.

46. (Currently amended) The method as recited in claim 39, further comprising:

the device obtaining the ~~one~~ two or more mechanisms during an initialization process of the device; and

the device accessing the set of resources using the ~~one~~ two or more mechanisms during the initialization process of the device.

47. (Currently amended) A method comprising:

a peer node on a network receiving a request from a device on the network, wherein the request specifies ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources for use by the device in participating in a peer-to-peer ~~environment~~-environment;

the peer node providing the ~~one~~ two or more mechanisms to the device in response to the request; and

wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes.

48. (Currently amended) The method as recited in claim 47, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

49. (Currently amended) The method as recited in claim 47, wherein the ~~one~~ two or more mechanisms include one or more ~~code~~ core mechanisms for accessing the set of resources.

50. (Currently amended) The method as recited in claim 47, further comprising:

the peer node maintaining version information for each of the ~~one~~ two or more mechanisms; and

if a particular mechanism of the ~~one~~ two or more mechanisms is updated to a new version, the peer node providing the new version of the mechanism to the device.

51. (Currently amended) A method, comprising:

a plurality of peer nodes on a network, implementing a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discovery each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment;

one of the plurality of peer nodes maintaining ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources on the network, wherein the ~~one~~ two or more mechanisms are obtainable by devices on the network to enable the devices to participate in the peer-to-peer environment, wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes on the network; and

a device on the network obtaining the ~~one~~ two or more mechanisms from the peer node on the network; and

the device accessing the set of resources using the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.

52. (Currently amended) The method as recited in claim 51, wherein the ~~one~~ two or more mechanisms include one or more advertisements for the set of resources.

53. (Currently amended) The method as recited in claim 51, wherein the ~~one~~ two or more mechanisms include one or more ~~code~~ core mechanisms for accessing the set of resources.

54. (Original) The method as recited in claim 51, wherein the plurality of peer nodes are members peers in a peer group that provides a common set of services to member peers of the peer group.

55. (Currently amended) The method as recited in claim 51, further comprising:

the one of the plurality of peer nodes maintaining version information for each of the ~~one~~ two or more mechanisms; and

if a particular mechanism of the ~~one~~ two or more mechanisms is updated to a new version, the one of the plurality of peer nodes providing the new version of the mechanism to the device.

56. (Currently amended) The method as recited in claim 51, further comprising:

the device terminating participation of the device in the peer-to-peer environment;

the device maintaining the ~~one~~ two or more mechanisms in memory of the device;
and

the device accessing the ~~one~~ two or more mechanisms to again participate in the peer-to-peer environment.

57. (Currently amended) The method as recited in claim 51, further comprising:

the device terminating participation of the device in the peer-to-peer environment;

the device obtaining one or more updated mechanisms for accessing the set of peer-to-peer platform resources from the one or more peer nodes; and

the device accessing the set of peer-to-peer platform resources using the one or more updated mechanisms to participate in the peer-to-peer environment.[:,;]

58. (Currently amended) The method as recited in claim 51, wherein obtaining the ~~one~~ two or more mechanisms comprises:

the device sending a message to the one of the plurality of peer nodes requesting the ~~one~~ two or more mechanisms; and

the device receiving the ~~one~~ two or more mechanisms from the one of the plurality of peer nodes in response to the request.

59. (Currently amended) An article of manufacture comprising program instructions, wherein the program instructions are computer-executable to implement:

a device obtaining ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources from one or more peer nodes on the network, wherein the one or more peer nodes participate in a peer-to-peer environment on the network to discover each other, communicate with each other, and cooperate with each other to form peer groups and share content, and wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes; and

the device accessing the set of peer-to-peer platform resources using the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.

60. (Currently amended) An article of manufacture comprising program instructions, wherein the program instructions are computer-executable to implement:

a peer node on a network receiving a request from a device on the network, wherein the request specifies ~~one~~ two or more mechanisms for accessing a

set of peer-to-peer platform resources for use by the device in participating in a peer-to-peer environment;[[.]]

the peer node providing the ~~one~~ two or more mechanisms to the device in response to the request; and

wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes.

61. (Currently amended) An article of manufacture comprising program instructions, wherein the program instructions are computer-executable to implement:

a plurality of peer nodes on a network, implementing a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discovery each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment;

one of the plurality of peer nodes maintaining ~~one~~ two or more mechanisms for accessing a set of peer-to-peer platform resources on the network, wherein the ~~one~~ two or more mechanisms are obtainable by devices on the network to enable the devices to participate in the peer-to-peer environment, wherein the ~~one~~ two or more mechanisms include:

a mechanism for accessing a discovery service for discovering resources in the peer-to-peer environment in accordance with a peer discovery protocol; and

a mechanism for accessing a membership service for applying for membership in accordance with a peer membership protocol in one or more peer groups each comprising a set of cooperating peer nodes on the network; and

a device on the network obtaining the ~~one~~ two or more mechanisms from the peer node on the network; and

the device accessing the set of resources using the ~~one~~ two or more mechanisms to participate as a peer node in the peer-to-peer environment.